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# Student's experience with developing patient education materials

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## Abstract

Providing education to healthy/ill individuals and their families as part of both clinical and field practice is an important element in the training of nursing students. Developing educational materials is a key component of patient education that nurses should learn during school training. This investigation was conducted definitively, to determine the views of second-year students of School of Nursing concerning their experiences in preparing patient education materials. Development of patient-oriented education materials by students not only motivates them to do research, but also contributes to patient education. The study recommends expanding counseling services intended to alleviate the difficulties that students experience while preparing patient education materials, and evaluating the effectiveness of the educational materials developed by students of nursing. © 2009 Elsevier Ltd. Open access under [CC BY-NC-ND license](http://creativecommons.org/licenses/by-nc-nd/3.0/).

**Keywords:** Nursing students; nursing education; educational materials; patient education

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## 1. Introduction

Educating patients is one of the important roles of professional nursing (Erdemir 1998). Patient education is a combination of learning experiences that protects health and helps produce behavioral changes in individuals. Patient education is a key concept that serves to improve the quality of care; reduce cost; and cause individuals to adopt preventive habits, take precautions to avoid health problems they may develop otherwise, and improve their self-care (Griffin et al 2003, Hoffmann and Worrall 2004, Avşar 2006, Yılmaz 2000, Sheard and Garrud 2006).

Through patient education, nurses can help improve patients' physical and mental health, reduce their anxiety, increase their quality of life, decrease their personal and environmental risk factors, and prevent disease (Griffin et al 2003, Hoffmann and Worrall 2004).

The purpose of patient education is to empower patients to cope with their illness and to develop their own decision-making ability concerning their care, by helping to improve their health-related behavior. Patient education is therefore a planned process (Sheard and Garrud 2006). In this process, which comprises collecting data, diagnosis, planning, implementation, and evaluation, the information imparted to the patient must be transformed into behavior without fail, and the acquired behaviors become manifest in the patient's health (Avşar 2006, [http://www.istanbulsaglik.gov.tr/w/sb/egt/pdf/hasta\\_ve\\_aile\\_egitimi.pdf](http://www.istanbulsaglik.gov.tr/w/sb/egt/pdf/hasta_ve_aile_egitimi.pdf)).

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Patient education as a planned process begins with the admission of the patient into the clinic, and lasts through discharge. During this period, in order to offer the best education to their patients, nurses must get to know them and their families; identify the patients' physical psychological, and social needs; and select a suitable education method for each patient and his/her family. The nurse should use written materials to reinforce and ensure retention of the oral information provided in patient education.

Written educational materials oriented to patients must be simple, well-designed, easy to read and understand; must include the information required by patients and their care-givers; and must be animated with pictures, drawings, and graphics (Griffin et al 2003, Hoffmann and Worrall 2004). The literature cites examples of reduced anxiety and improved satisfaction and quality of living among patients who were given such materials preoperatively (Griffin et al 2003, Hoffmann and Worrall 2004, Sheard and Garrud 2006, Leino-Kilpi et al 2005, Ream et al 2003).

Patient education, and its integral component of developing educational materials, are important subjects that should be taught nurses during their school training. Nursing students often provide education to healthy/ill individuals during their training, as part of both clinical and field practice. Beginning in the second year of their schooling, nurses intensively provide patient education alongside patient care in clinical practice. Patient education, and educational materials that augment the effectiveness of education, also help provide guidance to inpatients of surgery clinics where patient traffic is extremely fast-paced. Students develop numerous educational materials to use during education sessions. For these materials to serve their intended purpose, they must be well prepared, easy-to-read, understandable, comprehensive, and well-designed. In this context an important task awaits instructors at nursing colleges.

This study was conducted definitively, to determine the opinions of second-year students at Gazi University School of Nursing on their experiences related to preparing patient education materials.

## **2. Methodology**

The universe and sampling of the study were made up of 63 students who were taking the Surgical Nursing Course during the spring semester of academic year 2006-2007. The study was completed with 61 students because two of the students dropped the class.

All of the students who took the Surgical Nursing Course were divided into 15 groups of 4-5, with each group receiving counseling on a regular basis on a topic of their choice from one of the instructors who taught the course. The counselors advised the students, as needed, on how to screen the literature, and outline and put in writing the information they compiled, in order to produce well-designed educational materials that were easy to read and understand, and that met the information needs of patients and their caregivers.

The students worked with their advisors throughout the semester, and submitted the patient education materials they prepared to their instructors at the end of the semester.

The study data were collected by using a questionnaire at the end of the semester. The questionnaire included four questions related to the students' identifying characteristics, and six open-ended questions concerning their experience with preparing pamphlets. The students' response rate to the questionnaire was 80.3% (n=49). Statistical data analyses were based on percentages.

## **3. Results and Discussion**

All of the students who responded to the questionnaire were between the ages of 20 and 25, 41.9% were high-school graduates, 14.3% (n=7) were repeating the class, and 85.7% (n=42) had no prior experience in preparing patient education materials.

The students prepared educational materials on the following subjects: osteomyelitis, corneal transplantation, peripheral vascular diseases, percutaneous endoscopic gastrostomy, gastroesophageal reflux, gastritis, post-renal transplant rejection, incontinence, pituitary adenoma, thyroidectomy, laryngectomy, cholecystectomy, prostate cancer, and lumbar and cervical disc hernias. Again with 80.3%, a significant proportion of the students in each of the 15 groups that developed patient education materials responded to the questionnaire.

Table 1 presents the students' opinions regarding how they benefited from producing patient education materials. The students felt that preparing the materials helped them get a better grasp on the subject (46.9%) and that they

learned how to do research (40.8%), screen references (38.8%), work as a group (31.2%), and develop educational materials (26.5%). While 16.3 stated that their computer and Internet skills improved, 14.3% felt that they learned how to apply the knowledge they acquired, 8.5%, how to share the information, and 4.1%, how to translate text. The improvement in the research skills of the students participating in the study is noteworthy. There is consensus in the literature that producing effective patient education materials requires thorough screening and good usage of scientific resources, as well as good knowledge of the subject on the authors' part. We believe that the results from our study are consistent with the literature in this context (Griffin et al 2003, Sheard and Garrud 2006, Leino-Kilpi et al 2005, Ream et al 2003). In a similar fashion, in a study by Kaymakçı, et al. (2007), students stated that developing patient education materials helped improve their own abilities.

Table 1. Students' Views on the Benefits of Preparing Patient Education Materials\*

Views on the Benefits of Preparing Patient Education Materials	Student	
	No.	%
I learned the subject better when I prepared educational materials on it	23	46.9
I learned how to conduct research	20	40.8
I learned how to screen resources	19	38.8
I learned how to work with a group	15	31.2
I learned how to prepare educational materials	13	26.5
My skills of using a computer and the Internet improved	8	16.3
I learned how to apply the knowledge I acquired	7	14.3
I enjoyed doing research	6	12.2
I learned how to identify the most important needs of healthy/ill individuals	5	10.2
I realized the difficulties and the beauty of working with a group	5	10.2
I learned how to share information	4	8.5
My self-confidence increased	3	6.1
I learned to spot and correct my mistakes	2	4.1
I learned to translate text from English	2	4.1
My relations with my classmates became stronger	2	4.1

\*Percentages were based on  $n=49$ , and include multiple views expressed by the respondents.

The participants reported that they encountered difficulties while preparing patient education materials (See Table 2). The difficulties expressed by the students included communication problems among group members (38.8%), time-consuming nature of the work (36.7%), inability to get the group together (32.7%), and screening the literature (20.4%). Some 14.3% of the students stated that they did not know how to prepare educational materials, and 20.4% reported having difficulty with printing the materials. However, some students also expressed discomfort over the failure of their peers to exhibit the same level of responsibility (16.3%), inability to effectively use their time (10.2%), and fatigue (10.2%). Those who said they had economic problems rated 18.4%. It was learned that the students paid fees ranging from 10 to 70 YTL per group (27.80 YTL on average) for the materials they developed. Clearly, the difficulties encountered by most of the students participating in the study were caused to a large extent by their lack of experience with group work, and their lack of knowledge of how to effectively access and utilize the resources of information available. Considering that our students are in their second year, it may be safe to assume that their capabilities would develop by the end of their education.

Most (87.8%) of the students participating in the study ( $n=43$ ) said that they received active counseling, and that the advice they received was crucial to preparing their educational materials. The students reported benefiting from the counseling in preparing the education materials (38.8%), correcting their mistakes (22.4%), accessing resources (20.4%), and utilizing the information (20.4%). These results indicate that the counseling provided to the students proved effective. However, 12.2% of the students thought they did not receive effective counseling ( $n=6$ ), and of these, 6.1% stated that the counselors did not pay enough attention to collaboration within groups, while 2% said that they had difficulty reaching the counselors.

Table 2. Difficulties Encountered by the Students While Preparing Patient Education Materials\*

Difficulties Encountered While Preparing Patient Education Materials	Student	
	No.	%
Communication problems among group members	19	38,8
Spending too much time on preparing patient education materials	18	36,7
Difficulty getting the group together	16	32,7
Difficulty having the materials printed	10	20,4
Screening literature	10	20,4
Economic problems	9	18,4
Not all group members take responsibility	8	16,3
Not knowing how to prepare educational materials	7	14,3
Difficulty applying the acquired knowledge	7	14,3
Fatigue	5	10,2
Ineffective use of time	5	10,2
Fear of failure	4	8,5
Lack of good knowledge of English	2	4,1
Lack of motivation	1	2,0

\*Percentages were based on n=49, and include multiple views expressed by the respondents.

#### 4. Conclusion

Preparation of patient-oriented educational materials by the students attending the Surgical Nursing Course is thought to be a useful practice for both students and patients. This activity has the twofold advantage of steering students toward research, while contributing to patient education. It is recommended to increase counseling services to help reduce the difficulties that students face while working on developing patient education materials, and to evaluate the effectiveness of these materials.

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